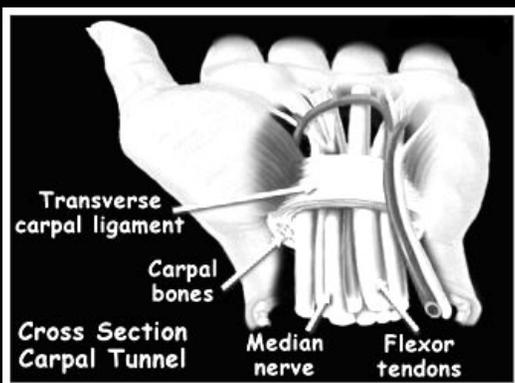


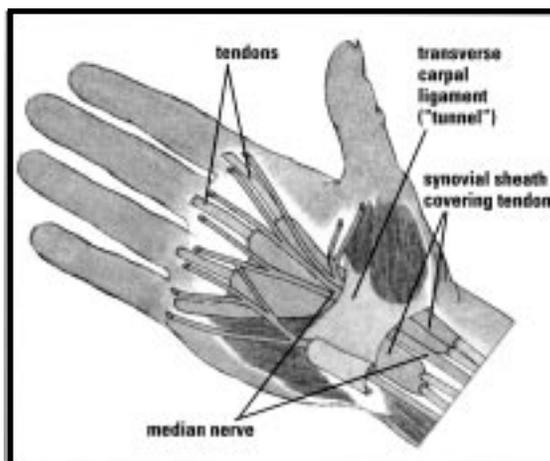


# CARPAL TUNNEL SYNDROME



## What is Carpal Tunnel Syndrome?

Carpal Tunnel Syndrome (CTS) is a common problem that affects many people in all types of workplaces. The bones of the wrist, called the carpal bones, form a tunnel through which the median nerve and flexor tendons run into the hand. The median nerve supplies sensation to most portions of the hand and the flexor tendons allow us to move the hand.



CTS falls into the category of Cumulative Trauma Disorders (CTD). Cumulative Trauma disorders can be defined as disorders that occur as a result of repetitive trauma. Repetitive trauma in the case of carpal tunnel syndrome may simply be flexing and extending the wrist. Eventually the repetitive bending motion of the wrist may cause swelling in the carpal tunnel, pressure on the median nerve and flexor tendons and finally, pain and numbness in the hand.

## Signs & Symptoms

Symptoms include numbness in the fingers, usually the thumb, index and middle fingers. Pain and tingling sensations which may radiate down the arm and into the fingers. If the condition progresses, weakness may be evident and grasping objects may become difficult.

## Common Causes

Carpal Tunnel Syndrome usually occurs as a result of chronic overuse. A change in the shape of the tunnel from an injury, fluid retention as seen in pregnant women or swelling from repetitive motions of the wrist and hand are all likely to result in compression of the median nerve within the tunnel. When there is compression on the median nerve, pain, tingling, numbness, and burning in the wrist and hand will be evident.





Tasks involving manual motion of the wrist and hand which may lead to Carpal Tunnel Syndrome include:

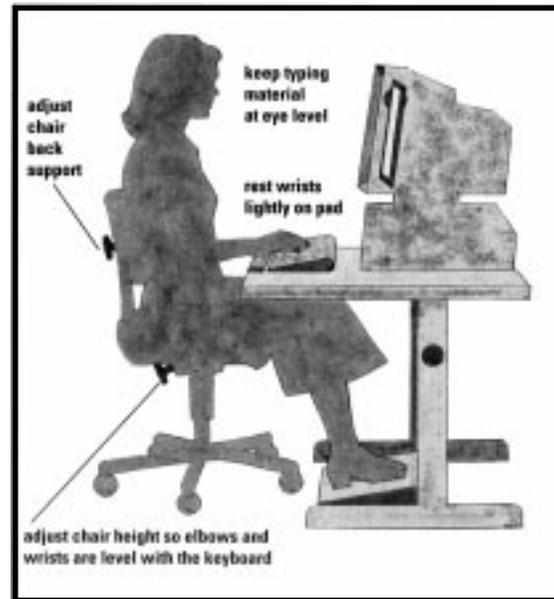
- sewing
- computer work
- small parts assembly
- use of vibrating tools or small hand tools
- various sports: golf, tennis, rowing or rock climbing are some examples

## Prevention

There are ways to prevent the development of Carpal Tunnel Syndrome. Begin by avoiding unnatural, awkward hand/wrist

working positions if possible. Modifying wrist and hand activity will also help in reducing symptoms.

This is where ergonomics play a huge role. Have your work station evaluated and adjusted to fit your physical requirements. Take microbreaks throughout the day. Stretch and relax your neck, back, wrists and hands in between long periods of work.



## Treatment

Initially, treatment involves reducing the inflammation around the median nerve. This may be accomplished by using ice and or anti-inflammatory drugs. Wrist or hand braces may also be used as a means of temporary support for the wrist and should be worn during repetitive activities and sleeping. If the individual does not re-

spond to conservative treatment then surgery may be required to reduce the pressure on the median nerve.

For more information regarding Carpal Tunnel Syndrome or other injuries, please visit RehabWorks in room 1103 of the O&C building.

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